

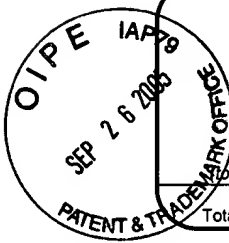
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Application Number	09/493,871
Filing Date	January 28, 2000
First Named Inventor	Christopher Evans
Art Unit	3711
Examiner Name	Mitra Aryanpour
Attorney Docket Number	11714-P02

## ENCLOSURES (Check all that apply)

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Firm Name	Perkins Smith & Cohen LLP		
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John A. Hamilton  
Reg. No. 48,946

### UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF APPEALS AND INTERFERENCES

Appellants:	Christopher Evans	Examiner:	Mitra Aryanpour
	Richard Evans	Art Unit:	3711
Serial No.:	09/493,871	Filed:	January 28, 2000
Title:	APPARATUS AND METHOD FOR SOCCER TRAINING AND PRACTICE		

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### Reply Brief to Examiner's Answer

Sir:

This is a reply to the Examiner's Answer dated 25 July 2005 in the above-identified application. No fees are believed to be required for consideration of this reply, however, if any fee is deemed to be required, the Director of Patents and Trademarks is hereby authorized to charge such fee or to credit any overpayment of fees to Deposit Account No. 03-2410 (Order 11714-1).

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## **GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

Claims 7-11 were rejected under 35 U.S.C. § 103(a), as being unpatentable over US Patent 4,147,353 to Moore (the '353 patent) in view of US Patent 4,720,095 to Sowards (the '095 patent) and US Patent 5,957,789 to Ainscough, et al. (the '789 patent.) The issues on this appeal relate to the applicability of obviousness on standards of the patent law. The arguments presented below apply equally to independent claims 7 and 11, and dependent claims 8-10, as a group of claims.

## **ARGUMENT**

***A. There is no motivation in the knowledge generally available to one of ordinary skill in the art, or in the nature of the problem to be solved, for such a combination.***

(1.) Motivation to combine prior art references may exist in the nature of the problem to be solved (Ruiz at 1276, 69 USPQ2d at 1690) or the knowledge of one of ordinary skill in the art (*National Steel Car v. Canadian Pacific Railway Ltd.*, 357 F.3d 1319, 1338, 69 USPQ2d 1641, 1656 (Fed. Cir. 2004)). While stakes having spiraled lower portions and rebounding type soccer trainers are known in the art, the fact that all elements of the Appellants' invention are individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levensgood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993); *In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1318 (Fed. Cir. 2000). There must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify or combine reference teachings. See *Ruiz v. A.B. Chance Co.*, 357 F.3d 1270, 1276, 69 USPQ2d 1686, 1690 (Fed. Cir. 2004).

The Answer repeats the assertion of the final rejection that it would have been obvious to have used Sowards' spiraled-type stake with a handle in the apparatus of Moore, the motivation being that it would retain the tethered-ball to the ground more securely, and that Moore teaches a "soccer practice device that has a strong ground connection." The Appellants, however, have submitted objective evidence to the contrary, *i.e.*, that producer of soccer trainers who have utilized the straight, tent-type stakes such as taught by Moore have failed to recognize the presently claimed solution for strongly securing in a minimally-interfering way a retrieval-type soccer kick practicing device that provides realistic ball motion (*i.e.*, lift and roll) and true 360° range of kicking

ability. As described in Appellants' Appeal Brief, such evidence includes a 1989 product recall (Appendix C of the declaration, Exhibit 2 of the Appeal Brief) of a straight tent-stake, retrieval-type soccer trainer, and subsequent to that the introduction of even more retrieval-type soccer trainers by others that appear to recognize the problem of dislodging straight stakes, but who didn't provide the combination of elements recited in Appellants' claims 7 and 11. Rather, they merely provide a warning in the trainer's direction for use about the straight stake dislodging potential following a kick. Appellants reassert that if the spiraled design is as obvious as asserted in the Final Office Action and Examiner's Answer, the risk of injury presented by straight stakes in retrieval-type soccer trainers would have been anticipated and prevented in the competing products' designs.

In addition, Sowards actually teaches away from retrieval-type soccer trainers, *i.e.*, soccer trainers that utilize "a length of elastic cord...presented several problems" (col. 1, ll. 15-17), and it is improper to combine references where the references teach away from their combination. *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983.) Moore discloses a retrieval/rebounding type soccer trainer having only tent stake type anchoring means (Figure 10), not recognizing that kicks from stronger soccer players would need a more secure anchoring means. Sowards' apparatus, in contrast, operates on the principle of retaining a soccer ball "in substantially its original position" (*see* Sowards' Abstract) - it does not have a "tethered-ball" (terminology employed in the Answer, page 4, describing the alleged motivation to combine Moore and Sowards.) Sowards' apparatus functions in a different manner and understandably utilizes a different way to assure ground adherence. Sowards' apparatus limits the ball motion to rocking about ring 118 in a circular arc movement (Figure 10) or spring 42 twisting (Figure 1). There is no significant range of motion and no opportunity in Sowards' apparatus (or in the Ainscough system, for that matter) to simulate a true soccer pass or kick on goal and see a realistic motion of the ball. Energy delivered by the user's kick is directly and immediately absorbed by Sowards' anchoring means and the S-ring connecting the ball to the anchoring means. This is in contrast to the operation of rebounding trainers, such as disclosed in Moore (and in Appellant's application), wherein the energy of a user's kick is first converted into the kinetic and anti-gravitational energy required to launch the ball, and then into potential energy stored in the stretched elastic portion of the tether cord and mechanical energy pulling on the spiraled stake.

Rebounding type soccer trainers provide a much closer approximation of normal game play than the systems of either of the Sowards or Ainscough. The present invention allows repetitive kicking in a variety of angles and trajectories from any position around the anchor on the fly. The player can move around to kick the ball, which cannot be done with the Sowards or Ainscough

devices. Most importantly, with the present invention a player can kick the ball straight ahead in front of herself and see if the ball goes in the direction intended. One troublesome skill for young players to learn is "lifting" the ball upward when they kick it. This is impossible with the Sowards device. With the Ainscough device, the player cannot see where the ball travels and the swiveling arm constrains the ball's rising, which is the opposite of what the young player wants to practice. The Sowards and Ainscough devices do not permit the visual feedback young players need. They need to see if their kicking practice is producing the desired results. By using an elastic tether the present invention allows the player to see the results of the kick in terms of velocity, trajectory, height and direction. These results are impossible to judge with the Sowards and Ainscough devices and they are of central, crucial importance to a training device.

Thus, Appellants respectfully contend that, prior to Appellant's invention, the unintended dislodging of anchoring stakes from the ground in rebounding-type soccer trainers had not been recognized as a problem to be solved by persons of ordinary skill in the art. Further, Appellants contend that the relatively low level of sophistication of the technology favors a finding of a lower level of skill of ordinary persons in the field which, in turn, favors Appellant's position of nonobviousness.

Stated again, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability to combine the elements in the specific manner in which the elements are claimed by the applicant. *Kotzab*, at 1370; *In re Dance*, 160 F.3d at 1343; *In re Gordon*, 733 F.2d at 902. The motivation to combine may come explicitly from the references themselves, from the knowledge of one of ordinary skill in the art, or, in some cases the problem being solved. *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1616 (Fed. Cir. 1999). As shown above, the references themselves, the knowledge of one of ordinary skill in the art, or, the problem being solved does not provide the motivation to combine the teachings of Moore disclosing a rebounding apparatus with the teachings of the '095 and '789 patents disclosing non-rebounding systems. The principles of operation of the systems differ in ways that are important to novel aspects of the presently claimed invention, the strong ground-adhering quality and the provision of a full range of ball kick motion. The references themselves do not provide the motivation for such a combination, nor do the low level of knowledge of one of ordinary skill in the art or the problem being solved.

Thus, independent claims 7 and 11 are nonobvious in light of the cited art. Claims 8-10 depend from independent claim 7. If an independent claim is nonobvious, claims that depend from

the independent claim are also nonobvious. *In re Fine*, 837 F.2d 1071, 1071; 5 USPQ2d 1596 (Fed. Cir. 1988).

(2.) The Answer repeatedly asserts, on pages 4 and 6, that "Moore's device is removably attached to the stake and the swivel", and that it would have been obvious to use a removable swivel-eye bolt and net in Moore's device because a swivel connector and net are employed in Ainscough, the motivation being, in order to provide an efficient connection and additionally, for allowing the ball to freely rotate 360 degrees with the cord winding upon itself so that the ball is able to move more freely "within its confines" creating a more realistic practice session.

Appellants respectfully contend that there is no teaching in Moore or Ainscough that expresses the desirability of modifying the Moore apparatus by using a "removable" swivel and a net as a holding means as in Ainscough, that only through impermissible hindsight can such a combination be made, and that Ainscough's swivel does not provide the free 360 degree efficient connection asserted by the Examiner. It is unclear what is meant by the Answer's reference to "Moore's device" in the context of a removable connection to the stake and the swivel, as Moore's disclosure does not describe how components are to be disconnected. Appellants assert that reading into Moore a disclosure that the "S-ring" of Figure 2 allows the swivel to be hookably removable is inappropriate, and that an opening in the S-ring wide enough to allow the swivel to hook upon the S-ring would by definition be wide enough to allow the swivel to unhook upon a kick of the ball and thereby send the ball sailing off unconnected, defeating the entire rebounding function of the trainer. Nor does Ainscough's swivel provide a *removable connection between a tether line and ring loosely mounted on the circular upper portion of a tie down stake and able to travel along a substantial upper portion of the tie down stake*. Rather, Ainscough's swivel is connected to a ring on an arm that rotates about a pole. This is not the true 360 degree movement needed to simulate real soccer ball kicks.

Appellants indicate that the post extending upward from ground in Ainscough's system interferes with a 360 degree range of kicking, and that the user would like to kick the ball straight ahead of herself up and over the post but is prevented from doing so. The rubber arm extending out from the top of the post to the tether does not allow the user to kick 360 degrees over the post and attempting to do so will only cause the ball to spin 360 degrees around the post, which is not a true representation of play.

Additionally, Ainscough fails to supply the motivation to combine the cited references. Ainscough's apparatus is also not a retrieval/rebounding type soccer trainer. Nor is the Butterfield applicant, cited substantively by the Examiner for the first time in the Answer. Ainscough describes no anchoring means at all; the pole to which the tether is attached is disclosed only as a rigid support with no apparent anchor. Ainscough also teaches away from the use of a tether line having an elastic portion (*see* col. 1, ll. 30-42) as in the presently claimed invention, stating

"By the term 'substantially inelastic' in describing the cord [sic] is meant that the fibers or strands forming the cord experience very little stretching or expansion other than a tensile or compression force which tightens or loosens the fit between adjacent fiber or strands. This cord is in contrast to a bungee cord which stretches substantially under a tensile force."

A pole 46 or 66 is provided in all of the Ainscough embodiments of Figures 1-6 and related text and the connection to the tether is located near the top of the pole rather than at ground level. The pole 46 or 66 interferes with ball movement and such interference and an inelastic tether limits realistic simulation of soccer play. The inelastic string rotates around the pole and may get wound up, there, contrary to the assertion made in the Action.

***B. The Examiner's Answer Fails to Give Sufficient Weight to the Objective Evidence of Secondary Considerations that Rebut any Prima Facie Case of Obviousness of the Claimed Invention over the Cited Art***

The Answer summarily dismisses as insufficient the objective evidence supplied by the Appellants of secondary considerations that rebut the Examiner's assertion that a *prima facie* case for obviousness has been stated.

Objective evidence of nonobviousness includes commercial success, long felt but unresolved need, the failure of others to invent, *see Graham v. John Deere Co.*, 383 U.S. 1, 17-19 (1966), and licenses showing industry respect for the invention, *see Arkie Lures, Inc. v. Gene Larew Tackle, Inc.*, 119 F.3d 953, 43 USPQ2d 1294 (Fed. Cir. 1997), among other factors. Appellants have submitted evidence of commercial success and endorsement by an independent, national soccer organization of a commercial embodiment of the claimed invention, as well as the failure of others to achieve an effective rebounding soccer trainer.

Appellants' Appeal Brief describes the objective evidence previously submitted, and therefore will only be summarized here. Any arguments made in the Appeal Brief are incorporated herein by reference in their entirety.



Appellants have presented evidence of commercial success of a rebounding soccer trainer embodiment (the Soccer Edge® trainer) of the claimed invention. Year-after-year sales growth evidencing adoption of the trainer by end users and retail outlets as a preferred soccer trainer has been provided in the form of Rule 132 declarations executed by one of the Appellants, and can only be attributable to superior performance of the invention as a result of the features recited in independent claims 7 and 11, as the limitations fully describe the commercial embodiment of the invention. Competing trainers, none having the full combination of features as recited in any of claims 7-11, have been introduced into the market with no measurable diminution of Appellants' sales. This commercial success can only be attributed to merit of the product as appraised by sophisticated retail customers, as the Appellants' company cannot afford significant marketing/advertising, has no sales employees or leverage of other products to use to gain shelf space in the retailers' stores, and the Appellants have not prompted end users at the retail level to purchase the product.

The Appellants have also submitted objective evidence, through the Rule 132 declaration of 14 October 2003 (Exhibit 2), that they have received positive feedback and commercial adoption from parties knowledgeable in the field of the commercial product embodiment of the claimed invention. More specifically, soccer coaches have provided the positive feedback, and the commercial product embodiment of the claimed invention has become the Official Licensed Bungee Soccer Trainer of the U.S. Soccer Federation, the governing body of organized soccer in the United States.

As noted above, the Appellants have also submitted objective evidence of the failure of others in the field to recognize the presently claimed solution for strongly securing in a minimally-interfering way a retrieval-type soccer kick practicing device that provides realistic ball motion (i.e., lift and roll) and true 360° range of kicking ability.

The rationale for giving weight to 'secondary considerations' is that they provide objective evidence of how a device is viewed in the marketplace, by those directly interested in the product. *see Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 7 USPQ2d 1222 (Fed. Cir. 1988), *cert. denied*, 488 U.S. 956 (1988.) Appellants respectfully contend that they have offered sufficient objective evidence such that, under a *Graham* analysis, any assertion of *prima facie* obviousness has been clearly rebutted. Thus, Appellants maintain that claims 7 and 11, as well as claims 8-10 that depend from claim 7, are nonobvious.

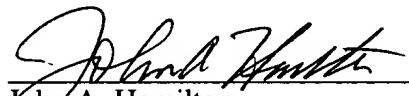
### CONCLUSION

It is clear from the Remarks above and in Appellants' Appeal Brief, which re-presents the Rule 132 Declarations already in evidence, that a *prima facie* case of obviousness of claims 7-11 has either not been established, or if one has been established, it has been rebutted, as the analysis under *Graham* shows, by the objective evidence, previously submitted by the Appellants of commercial success, adoption by persons knowledgeable in the field, and by the failure of others to invent a solution as provided by the claimed invention to the problem of providing effective rebounding soccer trainers. Thus, the rejections of claims 7-11 under 35 U.S.C. §103 are negated.

In summary, Appellants respectfully submit that claims 7-11 are clearly patentable for the aforesaid reasons and thus request this Honorable Board to reverse the decision of the Examiner.

Dated: September 26, 2005

Respectfully submitted,  
CHRISTOPHER EVANS, et al.

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